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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,882	07/28/2003	Calvin T. Millmann	2316.1642USC1	3868
23552	7590	06/07/2005		
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			EXAMINER HYEON, HAE M	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

4A

Office Action Summary	Application No. 10/628,882	Applicant(s) MILLMANN, CALVIN T.	
	Examiner Hae M. Hyeon	Art Unit 2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 21-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Takashi et al (6,077,154).

Takashi discloses a polishing apparatus for optical fiber end surface comprising a fixture 18 where a ferrule 23 is placed, an arm 31a coupled to the fixture 18 for moving the fixture 18 in a vertical direction using a lift mechanism 30 to bring an end face of the ferrule 23 into contact with a polishing surface 25, a driving mechanism 16 for rotating the polishing surface 25, a time setting dial 35A, and a pressure setting dial 35B.

Response to Arguments

3. Applicant's arguments filed on May 25, 2005 have been fully considered but they are not persuasive.

The applicant argues that the definition for the term “hackle” provided in the US Patent No. 3,934,773 is consistent with technical dictionary definitions, such as the definition attached to the Response filed on November 24, 2004 (defining “hackle” as “[a] defect in the cleaved end face of an optical fiber, defined as multiple surface irregularities across the fiber surface”).

Furthermore the applicant argues that a term should be given its broadest reasonable

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interpretation that is consistent with the interpretation those skilled in the art would reach, unless defined otherwise in the specification. MPEP 2111. Lastly, the applicant argues that the hackle portion 230 in the present application is consistent with the definitions for the term “hackle” provided above. Since the present application does not redefine the term “hackle,” the term should be given its ordinary meaning as one skilled in the art would understand it, such as the meaning provided in the ‘773 patent.

The examiner disagrees with the applicant’s arguments.

First, the definition for the term “hackle” provided by ‘773 patent is different than the “hackle” defined in the present specification. ‘773 patent column 2, lines 26-37 explains that the hackle zone 12 is one of the **three distinct regions** formed on **the fracture face** of a broken glass rod. Therefore, the hackle zone 12 in ‘773 patent only deals with a portion of an end face of an optical fiber. However, the present specification page 5, lines 3-5 and Figure 4 define the hackle portion to be a portion 230 of the optical fiber 222 that **extends outwardly from the end face 228 of the ferrule 220**. Clearly, the hackle zone 12 of ‘773 patent and the hackle portion 230 of the present invention are two different things. Thus, the definition of the term “hackle” in ‘773 patent cannot be applied to the present application as the ordinary and plain meaning for the term “hackle” as understood by one skilled in the art.

Second, the present invention claims a method for removing a hackle of an optical fiber from **an end face of a ferrule** and not for removing a hackle from **an end face of an optical fiber**. The polishing method of the present invention deals with removing of the residue epoxy 226 and hackle 230 (Portion of the optical fiber 222 and **NOT JUST** end face of the optical

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fiber) from the end face 228 of the ferrule 220. To remove the hackle 12 of '773 patent, only the end face of the optical fiber needs to be polished.

Third, because "hackle 12" of '773 patent and "hackle 230" of the present application are different from each other and because '773 patent was not part of the originally filed disclosure, applying the meaning of "hackle" of '773 patent to the present application is clearly adding a new matter.

Lastly, although claim 28 recites, "A method for removing a **hackle of an optical fiber**" in the preamble, the meaning of "hackle" of '773 patent is not given here because the present application never defined "hackle" to be a region on an end of an optical fiber. The only meaning of "hackle" given in the present application is the portion 230 of the optical fiber 222 extending outwardly from the end face 228 of the ferrule 220. Thus, the examiner has given the hackle recited in claim 28 the same meaning as the portion 230 of the optical fiber 222.

Although Takashi does not use the term "Hackle," Takashi does teach all the limitation recited in the independent claims. Column 10, lines 9-19 states that bringing an end of a ferrule to a polishing apparatus in slow contact and in slow grinding results in an effective result of removing an optical fiber protruded from the end surface of the ferrule integrally with an adhesive. Basically Takashi describes a removing a "hackle" (a portion of an optical fiber) from the end surface of the ferrule. Furthermore, the drawings of Takashi clearly show the polishing apparatus mechanically brings the end face of the ferrule into contact with the polishing structure. The description of mechanical polishing method can be found in column 4, lines 57-67 through column 5, lines 1-33 and column 6, lines 52-65. Thus, the examiner believes that the rejection is appropriate.

Conclusion

4. This is a continuation of applicant's earlier Application No. 10/628,882. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M. Hyeon whose telephone number is 571-272-2093. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C. Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hae M Hyeon
Primary Examiner
Art Unit 2839

hnh hnh

Hae Moon Hyeon